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INSURANCE RATES UNDER THE NEW MORTALITY TABLE

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Bureau of Business and Economic Research

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When we undertake the task of measuring a piece of cloth, we reach for a yardstick graduated in inches and feet. The unit of measurement, the inch for example, is certain and definite and does not change with time. The measurement of the span of human life is different. It changes with time, with environment, with the type of individual, and so on. And yet there is an underlying law which is self-evident to everyone, namely, that older people are more likely to die within a given period than younger people. The yardstick which indicates the degree of difference in rate of death among people of varying ages is known as a mortality table. By the use of this tool the insurance company fashions a set of premium rates which vary with age and plan of insurance, so that each person is asked to pay his proper share of the cost.

It may be surprising to some to learn that, in the entire history of life insurance in this country, which for practical purposes can be taken as the last 100 years, there have been only two mortality tables in general use. In the 1930s, when everything seemed to be under investigation, there was considerable comment about the use of a obsolete mortality table. The American Experience Mortality Table, which was then universally used by insurance companies, reflected the mortality of 1860, and there had been a marked improvement in the death rate since that time. This resulted in misunderstanding of the operations of life insurance companies; some persons claimed that the companies were charging too much.

In 1937 George A. Bowles president of the National Association of Insurance Commissioners, appointed a committee to study the need for a new mortality table. As a result of this committee's report, the 1941 Commissioners' Standard Ordinary Mortality Table was constructed, and is now in the process of being legalized in the various states. The Oregon law was amended in 1945 to legalize the new table and similar action has been taken in thirty-three other states. It is expected that the remaining states will pass suitable legislation by 1947, so that nationwide operation under the new laws may be possible by January 1, 1948.

In order to illustrate the change in mortality tables and to provide a background for comparison, reference will be made to some of the old tables. The early mortality tables were formed from population statis-

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TWI JOB-TRAINING PROGRAM IN OREGON INDUSTRY

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World War II brought many new problems to business. Some were more than just problems, they were headaches from which there appeared no relief. Government war agencies mushroomed; although designed to assist the war effort, these agencies plagued businesses, large and small. OPA, ODT, WPB, WLB, to mention a few, were not popular.[1] Businessmen complained rightfully or wrongfully about their regulations. History will probably record that, despite these war agencies' unpopular aspects, they fulfilled their mission.

But out of the maze of war agencies there rose one, not regulatory in nature, which escaped criticism. In fact, it had heaped upon it the accolades of industry producing for both war and civilian uses. This was the Training within Industry Division of the War Manpower Commission, known as TWI. When a government agency receives what amounts to an "E" pennant from labor, capital, and management combined, it is a point to be placed in the books of permanent record. TWI's contribution to the war effort is well known to those who worked with it and received its benefits. But, unfortunately, many businessmen do not know what it did, and what its principles and practice can still continue to do in peacetime industry.

The purpose of this article is to present information on: (1) what the TWI program was, (2) how it originated, (3) how it operated, (4) what it accom-

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[1] EDITOR'S NOTE: Dr. Gage speaks from experience. He was for three years district rent executive, Portland District, OPA. He was also program director of supervisor training, OPA, for employees under civil service.

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PEACE . . . IT'S WONDERFUL*

E. B. MacNaughton
President, First National Bank of Portland, Oregon

The title I have taken today for my remarks is "Peace, It's Wonderful." I suspect you know where I found the caption. It is the phrase used by the followers of Father Divine. They shout it as a salutation, they sing it as a song theme, they use it as an expression of faith and as a prayer. It soothes them, it quickens them, it hypnotizes them. It reacts like a faith cure, even as did that other verbal opiate of an earlier decade. "Every Day in Every Way I Am G tting Better and Better." Said often enough with sweet music and in cadence with others, such phrases are mental sedatives. No matter how bitter the facts of life may seem to be, for a time the spell of these opiates puts you under. You think there is peace and maybe you think you are better every day in every way.

It is hot stuff while it lasts, but when the happy dust of self-intoxication wears off the let down is terrific and another shot is needed.

When V-J day came we started our chant of "Peace, It's Wonderful." We had ourselves a time, even though the atomic bomb had scared the daylights out of us; but we said that's something we will fix up later on—let's get the boys back home, get production rolling, show us the goods for our money, tear up rationing, terminate price controls and quotas—there is business enough for everybody and let's get at it! Oh boy, "Peace, It's Wonderful"!

That was months ago. Today we wonder just where we are and how we got there. In thirty minutes I can touch on only two or three points.

There are two problems which confront us today: first, the immediate danger from inflationary pressures; and second, the long-term problem of how to obtain full employment in the postwar years.

Wars breed inflation as a swamp breeds fever. You can eliminate the swamp fever if you control the mosquitoes; you can check inflation if you control prices. Inflation comes when there is too much money and credit and not enough goods and services to go around. The extent to which money in circulation and credit have increased during the war can be seen from these figures:

	1940 Million	*1945 Million*
Money in circulation	$ 8,732	$ 27,826
Federal debt—June 30	48,500	280,259

The spread between the totals for those years indicates the financial dynamite which is in the picture today. If controls are relinquished and sparks get into that explosive magazine, there will be plenty of trouble and no singing of "Peace, It's Wonderful" will do any good then. What needs to be done must be done quickly. The cure for that situation is production and production and production.

But, instead, we see on every hand strikes which increase in extent and bitterness. Labor and management have a headlock hold on each other and neither will ease off. Labor wants wartime pay in order to retain purchasing power and thereby maintain buying demand for production and consumption goods; but it wants those goods sold without price increases despite labor-rate increases. The General Motors strike brings into the open the basic issue. The union says that the test as to wage increases shall not be the willingness of the employer to pay but his ability to pay; and to prove that ability the union demands access to company books to determine costs, prices, and profits. As phrased by General Motors, the issue stated in stark terms is this: "Is American business to be based on free competition, or is it to become socialized with all activities controlled and regimented?"

It should be said that the demand of the union that the employer show its ability to pay is not something new—it has been a demand in union negotiations for a long time. But we find in this strike a great mass-production industry and a great mass-employment union head-on in a fight to determine which side is going to win out. In some aspects this bitter quarrel between management and labor begins to assume the size and shape of a catclysm which, if it is not soon controlled, can lead the nation into a situation as dreadful as another which compelled Lincoln to say "This nation cannot long endure half slave, half free."

In the midst of all this heat and stress, it is heartening to learn of men who are trying to bring reason to play in an angry situation. These men cannot be laughed off as starry-eyed dreamers. They are among the leaders of some of our greatest corporations. They seek a middle ground between the anarchy of unrestrained let-alone-ism and a complete governmental guardianship of everyone. In a pamphlet put out last year by the Machinery and Allied Products Institute, whose officials are the officers of some of our largest corporations, this is said:

"Fear of a recurrence of the great depression has come to be a spectre that haunts our feasts, like Banquo's ghost. That such a catastrophe must be prevented is an axiom of present day policies. It is axiomatic also that government must play an important role in this undertaking, a role that will break new ground and raise problems of exceptional difficulty." And "capitalism," the brochure continues, "can no longer claim exclusive jurisdiction over the American economy, and it is the part of wisdom not to demand it."

Wars not only breed inflation, they also bring deflation and the depth of the latter is in direct ratio to the excess of the former. Unemployment and depression follow wars with monotonous regularity. For a short time after war there is a soaring boom which is followed by business distress, unemployment and crisis. Each depression has been worse than the one

* Address before the Portland Chamber of Commerce Forum on January 7, 1946.

which preceded it. We are at the end of the worst war history has known. We have spent astronomical sums for destruction. During the war we had prosperity, but it was a shot-and-shell prosperity. There is nothing now to show for this expenditure but death and destruction. There are no enduring productive resources appearing on the asset side of the world's balance as a contra entry to those disbursements for ruin. Furthermore, in order to gain the victory, two great enemy nations, which bulked large in world industry, have been destroyed. In the multilateral trading of world commerce, the elimination of those great producers is bound to have its future effects; for the world prospers as the sum of all its parts prospers. This statement should not be construed in any way as a defense of the military castes which came to rule in those countries.

What I want to make crystal clear is this point: America is part and parcel of a world which is enormously poorer in lives and in wealth accumulation than it was four years ago. Furthermore, we and our allies have astronomical debt burdens to carry and service. Yet, today in America, we act and talk and fight among ourselves as though we were the playboys of the world with time on our hands for anything but hard continuous productive work.

As a nation we have a stern decision confronting us. Either we elect to find a basis for orderly procedures in the settlement of our labor-management disputes and quickly start producing wealth instead of talking about dividing it, or fate will have some decisions to make for us and they will not be pleasant.

How great a responsibility rests upon America is expressed in a statement I will take from the address made by the president of the Hudson's Bay Company to his stockholders assembled in London last October:

"The real testing time for us all will come when this wholesale replacement demand has been filled; then the cyclical fluctuations of boom and slump will strongly tend to revive. At that time the new and as yet unproved technique for maintaining 'full employment' by government action on various lines will no doubt be put to the test in many countries, not excluding the United States of America. We must hope that it will be so co-ordinated and synchronized among the great industrial nations as to check the downward swing of the trade cycle. But we cannot expect complete success. It is only prudent to allow for a considerable recession in a world so largely dominated by the national economy of the United States, with its inherent tendency to this particular kind of instability. Much will then depend upon the soundness of the financial basis of the early postwar recovery."

Dislocations and tensions at home and abroad were the root causes for World War II. How completely unnecessary they were is made plain in the statement made by Sir Arthur Salter in his book *Recovery*, published in 1932:

"If we had had a system which enabled us . . . to produce without paralyzing interruptions, it would have been but a year or two before the world had not only repaired its war losses, but advanced to a standard of prosperity never before attained and scarcely imagined."

The dislocation brought about by this war is far greater than in 1919. But it is still true that the world's abounding resources of power and materials are sufficient not only to make good the material damage of war in a few years but to ensure unprecedented material welfare, if only we can set them to use.

In the remarks of the president of the Hudson's Bay Company which I have just quoted you noted his reference to "new and as yet unproved techniques for maintaining 'full employment.'" What is this demand for "full employment" which finds expression in the bill now in Congress? Is the clamour for that bill only a noisy campaign issue; is it a union tactic; or is it manipulated propaganda of subversive elements trying to make this country into something akin to a communistic state? Or, on the other hand, is it the expression of anxious people the world over for a better deal from organized business than they thus far have had? Emphatically and positively it stems from that bitter need and not from political patter. Science and the machine age, by solving the problem of production, have put a date line upon scarcity and the theory that the profit system depends upon the economies of scarcity—that the profit system is one that cannot succeed except by maintaining profits through high prices which result from making goods scarce. Today and for years past, thanks to science, society has had available the potential to escape from a deficit economy to a surplus economy. Professor Kropotkin stated this as long ago as the 1890s. Let me read to you what he then said:

"For the first time in the history of civilization, mankind has reached a point where the means of satisfying its needs are in excess of the needs themselves. To impose, therefore, as has hitherto been done, the curse of misery and degradation upon vast divisions of mankind, in order to secure well-being for the few, is needed no more; well-being can be secured for all, without overwork for any. We are thus placed in a position entirely to remodel the very basis and contents of our civilization—provided the civilized nations find in their midst the constructive capacities and the powers of creation required for utilizing the conquests of the human intellect in the interest of all."

Capitalism operating under a scarcity philosophy inevitably entails recurring depressions. These we now say should be accepted as acts of God. But this need not be if intelligence and courage and bold planning are directed toward the minimizing of the horrors of mass unemployment. Acting under the thesis that there is no solution for depressions, we will move straight into another and greater depression than any we have heretofore known. Business-

men who do any thinking about the future know that this is a possibility; for we wonder how we can hedge ourselves about to weather it when it comes again. In thinking and in acting that way, we are like the mythical beast of eastern Oregon folklore known as the "Side Hill Gouger," which, when it is confronted with an unexpected danger, has the capacity to turn itself inside out and disappear from view.

If capitalism and the free-enterprise system is to continue (I am of those who want it to do so), it must demonstrate its capacity to safeguard society against a recurrence of another world depression. If capitalism fails, some other system can and perhaps will be devised to take its place. It must be obvious that on America's prosperity depends the welfare of the rest of the globe. Unless we prosper, the world cannot prosper; and, unless the world soon prospers, another world war is the prospect.

Don't write down this cry about full employment. Don't turn yourself inside out, like the Side Hill Gouger, and disappear from view. Full employment is a battle cry; and, like the claim that all men are created free and equal, it shoots at the ultimate. Simply passing a law will not of itself insure full employment any more than passing the prohibition law insured the success of that program; but wise, strong, forthright programs of Congressional action put in motion can obviate some of the worst dangers of mass unemployment. We must do something now about building for safety, even though we cannot have full employment. We must do everything possible to block mass unemployment. This will require additional governmental authority and power as the sponsors of the Machinery and Allied Products Institute indicated in that quotation I read to you. Let me repeat it:

"The Government must play an important role in this undertaking, a role that will break new ground and raise problems of exceptional difficulty, for capitalism can no longer claim exclusive jurisdiction over the American economy and it is the part of wisdom not to demand it."

Such a postulate at once raises the problem of where the interplay of government-business shall begin and end. A reasonable test would be "that government do nothing that can be done for the individual by himself or in voluntary association with others and should leave undone nothing that needs to be done but cannot be done adequately by individual effort."

The *laissez-faire* school of economics which dominated the beginnings of the Industrial Age would permit nothing of government in business. But the days of *laissez-faire* are gone, and the influence of government over the affairs of the individual has increased as society became closer knit. The war tremendously expanded government participation in business and a part of this expansion will be permanently with us. The size of the Federal debt, which now is as large as our total national wealth was a few years ago, plus the servicing of that debt, plus the irreducible costs of government in other activities, will greatly increase the role government will play in the affairs of us all. This question of government interference in business will not be solved by cursing a political party or by nostalgic longing for days long past. When we dropped the first atomic bomb, we ended all dreams of yesteryear and woke up in the dawn of a new and frightening day which is bound to force human society into new patterns.

It will be the wildest folly for businessmen to blind themselves to coming change; and to remain ignorant or indifferent as to its effect is to invite the destruction of our business-enterprise system which, despite great errors, has meant so much in the advancement of our national wealth and well being. Greater and stronger international relationships must come. Great changes in government within our own country are required and will come. The attempt now under way to merge the Army and Navy into one unified fighting service is indicative of what's cooking. The head-on collision between management and labor in our mass-production industries is a phase of deep pressures at work. Solutions to relieve those pressures will require new governmental machinery and administrative organization. Proposals now being made to unify many of our governmental activities under so-called "valley authorities" is another example of changes enroute. The list can be extended, but enough has been said to clear the fact that we live in a time which demands great decisions. It is a time which calls for hard work, self-denial, patience, and cooperation.

I do not accept the despair as to the Industrial Age which is in the writings of a Brooks Adams or an Oswald Spengler, but in Spengler's *Decline of the West* I find a statement which is apropos to the present time. This is it:

"Up to now, everyone has been at liberty to hope what he pleased about the future. But henceforward, it will be every man's business to inform himself of what can happen and what, irrespective of personal ideals, hopes or desires, will happen."

When in the beginning I read my subject "Peace, It's Wonderful," there was by intent in the phrasing of it a note of sarcasm. That note need not have been there; it should not be there. Peace is *meant* to be wonderful. By definition peace is freedom from war and disorder. It implies friendly relations between nations and groups of men. The peace we thus far have won falls far short of that definition, and, as I say "Peace, It's Wonderful," it takes on a bitter tone and taste. There should be a right peace—there must be a *just* peace.

I read you Spengler's statement. I am going to repeat it with a slight rephrasing:

"Up to now, everyone has been at liberty to hope or to be pleased about the future, but henceforth it will be every man's business to inform himself of what must happen in order to make the peace just and true, and also every man must do his utmost to bring it to pass."

TWI JOB-TRAINING PROGRAM IN OREGON INDUSTRY

(Continued from page 1)

plished, particularly in Oregon, and (5) how its teachings may be utilized by businesses as well as by schools of business and trade.

The Beginning of TWI. When France fell in the middle of 1940, it was apparent to government leaders that the United States must prepare for war. History was repeating a familiar pattern, and our total unpreparedness in the last war, from the war-production standpoint, was an experience not to be repeated.

President Roosevelt called a meeting of leading industrialists to inform them that, while he was not a warmonger, he was convinced that we needed to have the nation's industry ready to convert to war production on short notice. He asked them to outline what industry could do to meet the war contingency.

After consideration, a small committee was appointed to report later to the White House on the recommendations of industry. Among the members of this committee were Edward J. Stettinius, then chairman of the board of United States Steel, Owen D. Young, chairman of the board of General Electric, Bernard Baruch, and Alfred Sloan, chairman of the board of General Motors. As the sample names would indicate, this was an "All American" team of industrialists. One of the first recommendations of this committee was to prepare for the large number of war workers who would be required when time for wartime conversion came. Many of these future workers would be untrained in the tasks to be assigned them. Moreover, many supervisors would be as green as the men under them.

As a result, the President asked the group to nominate a man who could set up a program of training within industry for the entire nation. In July 1940, Channing R. Dooley, then manager of industrial relations for the Socony-Vacuum Oil Company, was "borrowed" by the government. He was given the go-ahead signal to use any and all means, without interference from the White House or Capital Hill, to accomplish the purpose of his appointment. Dooley proceeded to draw around him capable assistants; using the "borrowing under pressure system," he secured the services of J. Walter Dietz, industrial-relations manager of the Western Electric Company, William Connover, assistant industrial-relations manager of the United States Steel Corporation, and "Mike" J. Kane, production engineer for the American Telephone and Telegraph Company. "Chan," "Mike," "Walt," and "Bill," as they were referred to by close associates in the central and field offices, were labelled the "Four Horsemen" in government and industrial circles. They proceeded to decentralize operations by dividing the United States into 23 districts (with Hawaii, 24). Local or regional industrialists of like caliber were secured to staff the field offices where the program was to be actually carried out.

It is sometimes said that government and its agencies move with the pace of a snail. But that was not true of TWI. A program conceived in July of 1940 was taking root all over the country by the beginning of 1941, months ahead of Pearl Harbor.

In February of that year, Laurin E. Hinman, then manager of the Vancouver Division of the Portland General Electric Company, was loaned to the TWI as Oregon district representative. Offices were subsequently set up in the Bedell Building in Portland (later moved to the American Bank Building and then to the Central Building). The national pattern was duplicated; Hinman surrounded himself, as did Dooley, with capable assistants; Jack Bristol, public-relations counsel, Norman Davis of KOIN and later assistant general manager of Station KALE, Stuart Ball, insurance, and Wallace Shields, electric-appliance sales manager, developed a team to put across TWI in their district. It is to be noted that these five men were drawn from administration, engineering, public relations, and salesmanship. The successful presentation of the TWI service depended upon trainers experienced in some or all of these lines of endeavor.

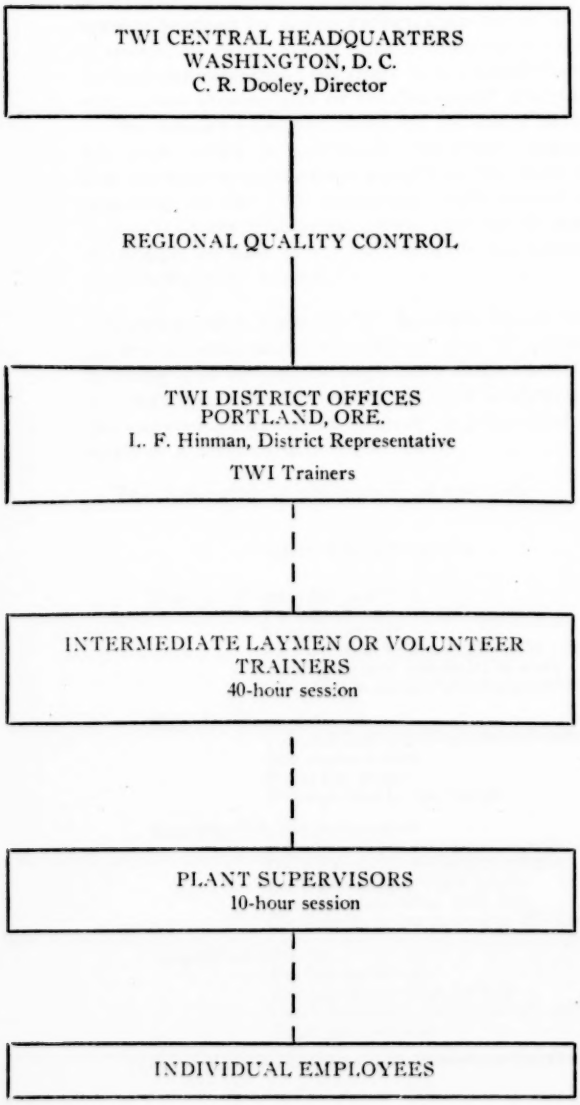
Operation of the TWI Program. It would be impossible, of course, for four or five men to train in a short time all supervisors or prospective supervisors in the district area which was composed of Oregon, southern Washington, and Idaho (Idaho was later attached to the Salt Lake office). Training institutes were conducted in Washington, D. C. and in regions throughout the United States, and were attended by trainers from the various district TWI offices. The institutes were conducted by experienced field representatives or "quality control" personnel from the central office. The quality-control men also checked district offices to see that there was uniformity in presenting the program to industry.

The same type of training sessions were then carried out by district trainers (who had been coached at the institutes mentioned above) either at the local TWI office or, more often, right in the mill, factory, plant, or shipyard of the expanding war industries. In using the term "war industries" we use it in its broadest sense—any plant producing raw material, semifinished parts, or finished parts or products having a government priority. Lumber mills as well as shipyards are included. These training sessions covered five to six days each, eight hours a day. Not every person attending turned out to be a qualified trainer. Some just didn't have the "know how." Only those certified were permitted to give sessions of their own in their company's plant. Trial sessions were attended by TWI trainers to correct errors in technique and to offer constructive suggestions for improvement.

These laymen trainers did not all come from supervisorships at war plants; many an everyday civilian volunteered for duty. Most were paid by war plants

or the state, none by TWI. One student trainer may have been an insurance salesman, another a shipyard leadman, another a printer and lithographer. Yet these men could go, as a result of training, into a strange plant and put across the TWI program more effectively, in many cases, than could a local supervisor in his own plant. TWI produced an impersonal, standardized pattern, workable anywhere and under all conditions.

The plan of A training B and B training C and so on might be termed the spread-out plan. By its use a few highly trained men could spread their experience down to the individual worker through intermediate trainers. The student or laymen trainers who attended the six-day session returned to their plants or to others and gave a series of five two-hour sessions (total, ten hours) to supervisors. It was training on the job or within industry, hence the designation of the agency. The diagram at the left will give the reader a visual presentation of the spreadout plan as it applied to the Portland district.



What TWI Is. We have discussed TWI in generalities. To be specific, there was nothing new in it. It was not an atomic bomb discovered under war duress. The ideas of TWI have been generating for years. They have been put into practice by many progressive companies, and have been presented in textbooks and trade periodicals. But never before had they been so streamlined, so concentrated, so simplified, so foolproofed, and so widespread. TWI had its roots in Frederick Taylor's school of scientific management. The ideas and experiences of the most progressive managers were translated in a language to be understood by the man on the job.

Everyone abhors the concept and form of the "efficiency expert," even though he probably has his place in industrial organization. Because of the ingrained antipathy towards him, however, he rarely delivers his message and effectuates his technique. It appears to the writer that back of TWI was a clear recognition of this condition and a counterplan to make even the lowest-scale employee his own efficiency expert—yet never to let those words creep in. That was the root of TWI's success.

Skills in Supervisorship. Every successful supervisor must have knowledges and skills about his job (and we use supervisor in its widest sense, including supervisor, foreman, boss, leadman, minor executive). Some knowledges are peculiar to a given type of work, and are learned only through long apprenticeship and association with a particular plant or industry. The supervisor's knowledge of his work and knowledge of his responsibilities belong in this category. In order to properly direct those under him, a supervisor must know what a particular job involves, what materials and equipment are needed, how the job is done, and what standards are to be met. Jobs naturally differ from plant to plant, and only management knows what work knowledge is required.

Secondly, to the employee, the supervisor is management. Knowledge of what management expects is a requisite of every supervisor, foreman, leadman, or minor executive. He must pass on to the workers what management expects him to pass on concerning plant policies. With these two skills or knowledges, TWI had nothing to do.

However, there are three other skills common to all jobs, regardless of the degree of variation in them. These are skill in instructing new men on the job, skill in working with people, and skill in improving methods. These three were the backbone of TWI, which labelled them respectively, *Job Training, Job Relations,* and *Job Methods;* combined, they were called the "J Series."

TWI Breaks with the Past. TWI made a clean break from the old concept of supervisorship—that men are hired to do, never to think. While, as it has been indicated, the basic pattern of TWI represented nothing new, the manner of indoctrination and in-

struction departed from conventional instructional methods. The lecture method had largely failed to improve supervisorship. Men on the job resented being talked to, and allowed their minds to wander.

TWI remedied this condition by reducing lecture to a minimum. Consider, for example, a typical ten-hour or short "J" session. There were usually ten trainees or less in attendance, selected from a better-than-average group. In the first session they were put at ease by the trainer, and invited to participate in discussion so that the group might pool knowledge. The trainer lectured only for a short time and then drew out ideas from the trainees. Soon the entire group wanted to talk and the job of the trainer became one of directing the channel of thought according to a prepared pattern, which was outlined for time and topics in a written manual. A good trainer would have every man at succeeding sessions vying to express his opinions and ideas. Practice and demonstration developed confidence and interest. The trainee learned by doing rather than being told how it should be done. He became indoctrinated without feeling the injection; for there was a total absence of classroom atmosphere or teacher-pupil attitude.

The trainee emerges from the ten-hour session in his own mind a self-made top-flight supervisor, zealous to convey to those under him the same understanding of the job. Generally, subsequent experiences indicate that he becomes what he thinks he is. Although we hate to use the term, he has become his own "efficiency expert."

Content of a Typical "J" Session. Space will not permit a delineation of each of the "J" series, and nothing will be lost by omission, since each follows a similar pattern. Let us select "Job Instruction" as the example. The entire "course" is presented on two sides of a 3 x 5 card.

The following is presented on one side:

HOW TO INSTRUCT

Step I—Prepare the employee
- Put him at ease
- State specific job
- Find out what he knows about the job
- Develop interest and desire to learn
- Place him in correct learning position

Step II—Present the job
- Tell and show and illustrate and question
- One step at a time
- Stress key points
- No more than he can master

Step III—Try out performance
- Have him do job and correct errors
- Have him do job again and explain
- Have him explain KEY points
- Question him—what, why, how
- Continue until you know that HE knows

Step IV—Follow up
- Put him on his own
- Tell him where to go for help
- Check frequently and encourage questions
- Taper off coaching

If the employee hasn't learned, the supervisor hasn't taught.

And one the other side of the card is:

HOW TO GET READY TO INSTRUCT

Have a Time Table—
how much skill you expect him to have, and how soon.

Have a Job Breakdown—
list principal steps
pick out key points

Have Equipment and Materials Ready—
the right equipment, materials, and supplies

Have Work Place Properly Arranged—
just as the employee will be expected to keep it

There is no textbook to read, no written assignments to prepare, and no examination to take; but there is lots of thinking to do during and between sessions. In expanding the four steps, only a skillful trainer can cover the material in a ten-hour session. As indicated previously, the trainer uses openly a prepared manual. And incidently, the manual on "Job Instruction" has gone through some twenty-three revisions as a result of constant testings in the field and as a result of suggestions coming from the trainees themselves. The trick in presenting successfully any of the "J" series is to plant the embryo of an idea, and let it germinate in the minds of the trainees. They discover it, not you.

What TWI Accomplished in Oregon. Opponents of bureaus need have no fear that this is another war-born alphabetical child who will want to feed in the government trough in peacetime. TWI has closed its doors. Like Cincinnatus, TWI has sheathed the sword and returned to the plough. Only a skeleton crew remains in the central office in Washington. Its task consists of winding up routine affairs and preparing a history and report of TWI for posterity. It is proper then that, before it becomes merely a record in government archives, a reveille be sounded to emphasize TWI's accomplishments. Here is a brief resume of what it did in Oregon.

The records indicate that 501 firms in Oregon, Idaho, and southern Washington made use of the TWI program. Approximately 30,000 supervisors were certified in one or all of the "J" series. These 30,000 supervisors were in charge of roughly 350,000 employees. If the spread-out system reached perfection, five men in the district office in some way touched the thinking of over one-third of a million men towards their jobs.

Bare statistics prove nothing. What did TWI accomplish towards speeding up machinery and materials for war, how did it increase per-man output, how did it reduce waste, how did it meet labor shortage, how did it reduce labor turnover and costs? Exact statistics cannot be produced now, nor will it ever be possible to know the entire role played by TWI. However, it is possible to show what it accomplished in given plants in this area, and to present opinions of some of the leading industrialists of the area. Here are a few sample citations:

"Breaking-in time of new employees was reduced from 3 to 87 per cent, waste and scrap losses reduced from 2 to 47 per cent, grievances from 7 to 100 per cent." One shipbuilding firm reported a reduction in production costs in one department alone of $75,213 annually. A food-processing plant saved $45,000 in one year on just the cherry pack. Another food canner reduced his payroll from 9,500 employees to 4,800 and put out a slightly larger pack with the smaller number of persons.

Margaret Thompson, staff feature writer, told a portion of the story of TWI in the April 16, 1944 issue of the *Oregonian* under the title, "Miracle of a Million Foremen." As she pointed out, the Chamber of Commerce presented to the agency an "Industry Award" which was the first recorded instance in which "an appreciative industry decorated a government agency." Here are some specific examples cited by this writer:

B. C. Henricks, marine pipe fitter at Swan Island shipyard, developed a tubing expander which saved 50 per cent of time and 75 per cent of material. Another Swan Islander, George Knudson, marine machinist, developed a reach-rod winch which saved $25,000 in the construction of seventeen tanker hulls.

A Portland concern manufacturing special crystals for radio communication systems faced a particular problem. The beveling of the crystals could be done only by women—men's fingers were too large. In the beveling process the grinding compound actually wore the skin off the fingers. The average plant output was 500 crystals per employee, 80 per cent of which required retouching. A TWI graduate redesigned the beveling machine with the result that an average girl can now turn out 2,000, and the fastest can go as high as 4,000 without any more effort, without bloody fingers, and without retouching.

Personal comments of some of the local industrialists who used TWI and measured its results will add to the list of tributes. John Bartosh, superintendent of Libby, McNeil and Libby, stated: "TWI has done wonders in helping us meet the labor shortage and at the same time reduced our production costs." E. C. Sammons, president of the U. S. National Bank, then executive vice president of the Iron Fireman Manufacturing Company, made this comment: "TWI has really worked miracles in this national emergency. It has made one of the most outstanding contributions to American industrial production." And Henry A. White, general manager of the Commercial Iron Works, famed for its production of DE boats, landing craft, and converted carriers, had this to say: "TWI has been a major factor in our successfully meeting the Navy's demand for a wide variety of ships."

Military and Foreign Accomplishments. Emphasis has been on TWI accomplishment on the home front; yet it should be noted that both the Army and Navy adopted the program, utilizing it in ordinance plants, arsenals, shipyards, quartermasters divisions, and ship-supply depots.

It is also significant that TWI gained foreign recognition. Our production methods have always been the envy of foreign nations. Unfortunately, Hitler's ability to weld together the Wehrmacht and the Luftwaffe may be partially credited to the methods his subordinates learned from American industry. Fortunately, our allies were also able to make use of TWI, which caught on so quickly that it was taught in Canada, England, and India.

It is conservatively estimated that over 2,000,000 people—civilians, civil service, and armed services—received TWI training.

Lessons Learned from TWI. It has been noted previously that TWI was a program planned, in anticipation of war's demand, to meet the problems of a suddenly increased labor supply which had to be quickly adapted to new products and methods. Nevertheless, the practices learned under the exigencies of a war economy can well be adapted to normal peacetime economy. Employers, employees, vocational schools, and trade schools can all make use of portions of the TWI program.

Employers have learned of the savings effected by the program in reducing labor costs, labor turnover, grievances, and waste in material and time required to put a new man on the job. The employees and unions have learned that TWI is not a speed-up technique. Rather it is a means of making the average workman a prospective foreman or supervisor.

No longer need we find the conditions that were prevalent in many plants throughout the country where the new man on the job was never told specifically what his job was and how he was to do it, nor was anyone delegated to train him quickly. The writer has in mind his own experience in working in a plywood plant for several months in 1942. He reported for duty on the graveyard shift to the night foreman, who turned him over to the crew on the dry-chain table. There he was simply left to shift for himself and learn "by guess and by gosh," with workers yelling warnings and suggestions under the din of pounding machinery.

Under TWI methods, new men would be assigned to trainers who would first instruct them, in a quiet room. Each worker would then be taken to his job where he could see the operations he would be required to do. He would then return to the trainer who would go over the routine. Finally, he would go on the job and be constantly checked by the trainer. He would learn more quickly because he would know what he was supposed to do and why he should do it a certain way. Above all, he would be less inclined to become discouraged, for he would have the feeling that somebody was looking out for him.

In the business, trade, or vocational school, the TWI program is a challenge to the more conventional methods of instruction. No student learns entirely by receiving instruction, whether by lecture or textbook reading. He must participate and, as TWI emphasizes, "learn by doing."

As a final summary of this article, I would like to

quote from the final news letter of TWI to its staff:

"The keys will be turned in TWI District office doors the end of September. TWI as an operating agency will have ended its five years of service to American War Industry. But TWI programs will go on—in the 18,000 plants and railroads and mines and shipyards and utilities and hospitals where more than a million supervisors have acquired skill in using a regular method of attack on their day to day problems, and in the unions which have been assisted in the training of their stewards.

"To these establishments, TWI leaves its programs, and to these supervisors TWI sends its final message—'Build and increase your skills in supervision—the supervisor gets results through people, and management gets results through supervisors.'

"Whatever results TWI has achieved are due to the cooperation of American industrial management, and to the faithful service of every man and woman on the TWI staff."

INSURANCE RATES UNDER THE NEW MORTALITY TABLE

(Continued from page 1)

tics and many assumptions were involved. For instance, the Northampton Table, covering the period 1735-1780, was constructed only from the deaths and without any enumeration of the population. Thus errors were introduced through emigration, immigration, and births. However, this table was used extensively both by insurance companies and by the British government for annuities.

Later, when enough insurance statistics had become available, companies adopted tables based on their own experience. One of these, the Actuaries Table, reflecting the experience of British companies up to 1838, is still prescribed by Oregon and many other states for the valuation of life estates in connection with inheritance taxes. This table was used by many life-insurance companies in this country until 1900, when it was replaced by the American Experience Mortality Table.

The American Experience Table was based upon the experience of the Mutual Life Insurance Company of New York from 1843 to 1860. Only those applicants who had passed a medical examination and were accepted for insurance were included in the experience on which the table was based. This table was intended to represent the death rate among insured lives living in healthy districts after the effects of medical selection were eliminated. The table is still being used by most companies in the United States today. It is considered a safe table for insurance operations.

The American Men Mortality Table, now used by a few companies in this country, was the result of a study of the desirability for a new mortality table begun in 1911. In that year the National Association of Insurance Commissioners authorized an investigation of recent mortality of insured lives similar to the action taken in 1937. The American Men Table reflects the mortality experience of insured lives studied over the period from 1900 to 1915. General adoption of the table for use by all companies was considered in the early 1920s, but some question as to its safety was raised. Just after 1915, the last year included in the mortality study, the war and an influenza epidemic occurred; both affected mostly young lives. Since it was at the younger ages that the greatest reduction in mortality rates had been indicated by the American Men Mortality Table, the hesitancy to adopt the table can be readily understood. It was not until comparatively recent years that the American Men Mortality Table has been used as a basis of rates, and even now there are only a few companies using it.

The new mortality table, the 1941 Commissioners Standard Ordinary Mortality Table (referred to as the CSO), is based upon the experience of insured lives from 1930 to 1940. A table based on recent experience was desired; but this very requirement demanded some caution in recognizing fluctuations which are certain to occur. For instance, the experience for the three years 1937-1939 showed the mortality rate for the age group 25-29 to be 32 per cent lower than that for the three years 1930-1932, whereas the age group 65-70 was 14 per cent higher for the same period. The mortality rates in the final table therefore include a small addition to the experience rate to provide for fluctuation and contingencies.

With this brief explanation, the chart (on page 10) showing the mortality rates by the various tables mentioned can be reviewed.

RATES OF MORTALITY BY VARIOUS TABLES

Age	*Northampton 1735-1780*	*Actuaries 1837*	*American Experience 1843-1859*	*American Men 1900-1915*	*CSO 1930-1940*
20	.0140	.0073	.0078	.0039	.0024
30	.0171	.0084	.0084	.0045	.0036
40	.0209	.0104	.0098	.0058	.0062
50	.0284	.0159	.0138	.0116	.0123
60	.0402	.0303	.0267	.0267	.0266
70	.0649	.0649	.0620	.0615	.0593
80	.1343	.1404	.1445	.1357	.1319

There are two outstanding features presented by a comparison of these tables: (1) At the younger ages there has been a steady decline in the mortality rate. (2) At the older ages there has been no material change in the mortality rate. This is especially true for the three American tables, which show practically the same rate for age 60. As a matter of fact the new CSO table is very close to the American Men Table for ages 35 and over.

Considering the change in mortality rates shown by the various tables, the natural question is: What effect will this have on the policyholder? One might suppose that the substitution of the new table for an old one might have the immediate effect of reducing the cost of insurance. There are two reasons why this result will not follow:

(1) Insurance companies have used recent mortality studies in fixing their net costs. Charges for life insurance are fixed to allow payment of claims and

expenses according to experience and not according to some fixed table. Even though premiums may be based on the American Experience Table, a refund or dividend is allowed. A part of this dividend results from substituting the actual mortality experience of the company, once it is known, for the American Experience Table. The mortality table serves a purpose similar to that of the compass in indicating the direction. However, just as the compass is corrected to true north by using the angle of declination, the charge for life insurance is corrected by refunding any amount not needed to cover actual expenses.

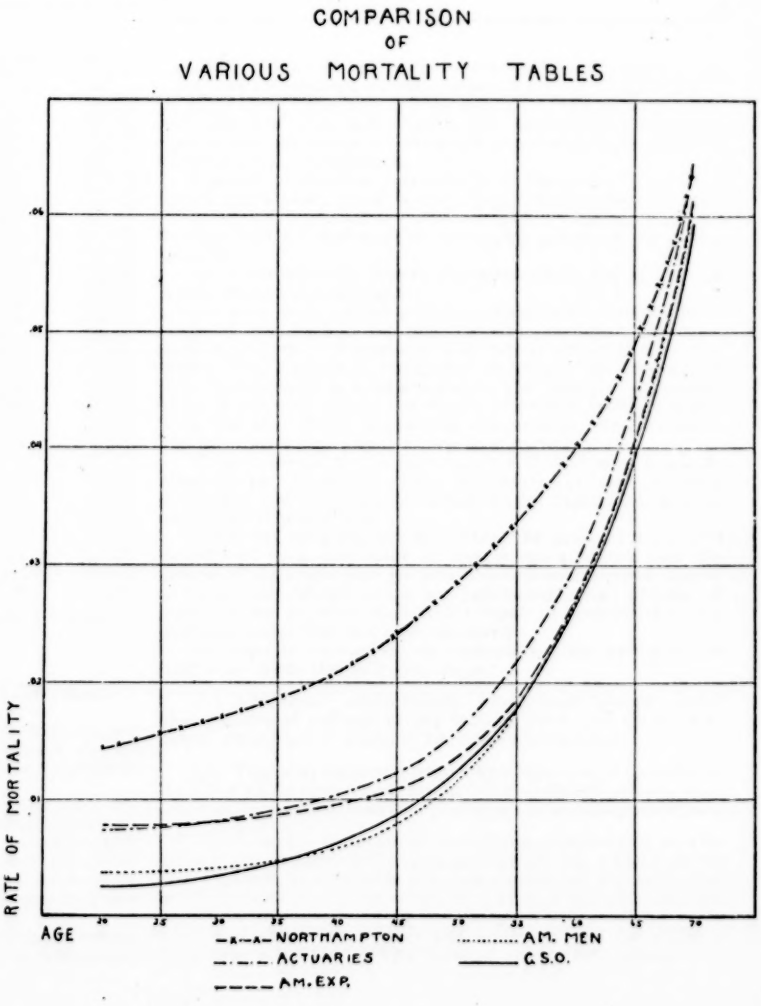
(2) The decrease in interest rates will cause an increase in costs. A great many companies have delayed making a change in the interest rate on which premiums are based until they could also change the mortality table. The deadline in practically all states which have passed the new laws is January 1, 1948, after which the new table must be used. With fifteen more states left to modernize their insurance laws to include the use of the new table, companies are rather reluctant to make changes now with the prospect of another change within a year. The rate of interest is a very important item in connection with the cost of life insurance. When the earnings from interest are decreased, more must be collected in premiums so that enough will be on hand to pay claims. For example, a decline in the rate of interest from 3 per cent to 2 per cent will increase premium rates from 10 per cent to 30 per cent, depending on age and plan of insurance. This is more than the decrease in premiums which will result when the CSO Mortality Table is used instead of the American Experience Table or the American Men Table.

Thus, any effect which adoption of the new mortality table might have had in reducing premiums will be obscured through the compensating effect of the decreased interest rate. This refers merely to the premium rate and not to the net cost, i.e., premium less dividend, which was discussed above.

However, the new table will have one noticeable effect—in regard to the withdrawing policyholder. When a premium is not paid, policies provide that, after a certain time, the extended term-insurance benefit may become operative. Under this provision the value of the policy is used to provide insurance for as long a period as the value will pay for. When the new table is used, the period will be considerably longer at the younger ages (where the mortality rates are lower). There is no material difference at the older ages.

One of the purposes of the new laws is to promote more equitable treatment of withdrawing policyholders; the use of the new mortality table will do this. Besides this, it may help to eliminate the criticism that companies are overcharging their policyholders because they are using an antiquated mortality table. As has been pointed out, net costs are based upon actual experience; but use of a modern mortality table for calculation of premiums may make it much easier for the average policyholder to understand insurance cost.

Although farmers make up about 23 per cent of our population, they received as net income from agriculture only 7.3 per cent of our national income in 1939, and only 9.5 per cent in 1942. Forty-seven per cent of all farm families had cash incomes of less than $750 in 1941.



CENSUS OF FARMS AND ACREAGE SHOWS GAIN IN OREGON

Oregon has gained 2,439 farms and 1,838,384 acres in farmlands since 1940, according to preliminary figures for the state compiled in the 1945 Census of Agriculture.

The number of farms in the thirty-six Oregon counties increased by 3.9 per cent, from 61,829 in 1940 to 64,268 in 1945; farm acreage increased by 10.2 per cent, from 17,988,307 acres in 1940 to 19,826,691 acres in 1945, and average size of farms increased by 6 per cent, from 290.9 acres in 1940 to 308.5 acres in 1945.

Greatest increase in number of farms, 897 or 20.1 per cent, was shown by Lane County, but its farm acreage increased only 0.8 per cent. Greatest increase in farm acreage, 614,817 acres or 79.5 per cent, was shown by Klamath County, although it lost 86 or 7.8 per cent of the 1,552 farms it had in 1940.

The following table gives the preliminary totals for each of the Oregon counties and for the entire state, with 1940 comparative figures.

1945 PRELIMINARY FIGURES ON NUMBER OF FARMS AND LAND IN FARMS IN THE 36 OREGON COUNTIES, WITH 1940 COMPARATIVE FIGURES

County	Number of Farms 1945	Number of Farms 1940	Farm Acreage 1945	Farm Acreage 1940
Baker	1,091	1,259	885,529	795,435
Benton	1,292	1,507	217,023	221,054
Clackamas	5,988	5,475	305,653	301,231
Clatsop	1,018	661	71,894	51,754
Columbia	2,101	2,060	160,834	138,085
Coos	1,827	1,953	291,255	282,375
Crook	473	495	825,651	817,898
Curry	618	375	131,457	104,332
Deschutes	1,002	1,047	262,610	185,146
Douglas	3,199	2,734	678,422	625,632
Gilliam	240	292	761,561	812,636
Grant	530	580	1,146,021	913,606
Harney	395	436	1,168,612	874,450
Hood River	1,044	1,142	39,238	39,666
Jackson	2,991	2,702	412,166	316,394
Jefferson	275	227	557,887	697,232
Josephine	2,288	1,944	124,784	125,206
Klamath	1,431	1,552	1,388,339	773,522
Lake	432	484	1,104,033	863,205
Lane	5,351	4,454	512,949	509,056
Lincoln	988	972	120,239	110,735
Linn	3,273	3,325	465,554	484,800
Malheur	2,555	2,545	1,099,968	900,641
Marion	5,259	4,785	385,433	376,815
Morrow	506	540	991,433	968,362
Multnomah	2,391	2,260	78,599	79,770
Polk	1,728	1,743	208,918	222,622
Sherman	292	343	471,175	462,375
Tillamook	942	960	83,545	90,259
Umatilla	2,123	2,312	1,538,114	1,609,180
Union	1,208	1,255	496,169	471,173
Wallowa	811	989	679,360	579,063
Wasco	852	1,007	885,310	875,843
Washington	4,671	4,348	240,390	244,957
Wheeler	247	249	760,370	772,850
Yamhill	2,836	2,817	276,196	290,947
Total	64,268	61,829	19,826,691	17,988,307

PORTLAND COST OF LIVING DECEMBER 15, 1945

(Courtesy, San Francisco Regional office, Bureau of Labor Statistics)

The cost of living in Portland on December 15, 1945 was 137.3 per cent of the cost of living during the 1935-39 base period. This index measures the cost of goods and services ordinarily purchased by wage earners and lower-salaried workers and is not to be interpreted as an over-all measure of the cost of living of everyone in Portland irrespective of income.

The data from which the index is computed are collected quarterly (with the exception of food, which is collected monthly). They are composed of six groups: food, clothing, rent, fuel, house furnishings, and miscellaneous. The index reading for the date closest to the attack on Pearl Harbor is shown below for comparison:

	1935-1939 Average	Dec. 15, 1941	Dec. 15, 1945
All items	100.00	113.7	137.3
Food	100.00	121.3	153.9
Clothing	100.00	113.0	142.5
Rent	100.00	112.6	114.3
Fuel	100.00	102.9	120.5
House furnishings	100.00	115.7	150.4
Miscellaneous	100.00	108.7	131.9

The Bureau of Labor Statistics does not collect consumer price data for any area in Oregon except Portland.

OUTLOOK FOR BUILDING MATERIALS

The supply and price prospect differ considerably among the various products. Supply prospects are affected by the manpower problems. In all cases total demand at present prices exceeds capacity output.

The price prospect turns on such factors as the price increases already approved, prospective further increases, ability of distributive trades to absorb manufacturers' increases, and the effectiveness of OPA controls. *Hanging over the whole price situation are the enormous inflationary pressures—from both the cost side and the demand side—and the fact that the Price Control Act expires next June 30.*

The production of lumber and other building materials since V-J Day has thus far been restricted by manpower problems. So far the end of the war has not eased, and in some cases has accentuated, manpower problems which were severe in all of these industries in 1944 and early 1945. In fact, in the soil pipe and brick industries it was necessary to introduce special wage increases accompanied by some price increases in order to break a bottleneck.

Lumber production currently is at the rate of 25 billion board feet a year, which is only 70 per cent of the 1941 rate. Exhausted inventories of mills and dealers make it clear that lumber will be scarce even for repair purposes for many months.

To a considerable degree the same story can be told of brick, tile, and gypsum lath.

An even more serious problem exists in foundry products made of iron, such as soil pipe, cast-iron radiation, bathtubs, and other grey-iron products. The rate of production is well below 1941 because of manpower shortage. The solution of this "bottleneck" is fundamental to the whole of reconversion. It not only affects the supply of critical building materials, but also affects appliances, automobiles, etc.; for these durable consumers' goods all use iron castings.

Cement should be in ample supply and steel more available than lumber. Electrical wiring and related articles, builder's hardware, and plumbing items that do not depend on castings should soon be available.

OPA has no authority to control the price of a finished house sold by a contractor. It merely has a control over the prices of materials that go into finished construction and of services (not labor) which are purchased in the process of construction. Services include the repair or construction of a building under contract with the owner.

In order to strengthen its controls for the period ahead OPA has taken the following steps:

(1) Additional commodities have been placed under dollar-and-cent ceilings at the factory level, and some additional distributors' margins have been prescribed.

(2) The most important step taken, however, is one whereby OPA's field staff is converting OPA's regulations into area-wide uniform dollar-and-cent ceilings for building materials.

(3) A similar program of converting construction service prices into uniform dollar-and-cent prices has moved ahead. For example, an area-wide price per square foot for putting on a certain kind of roofing would be specified. Another example would be the specifying of the charge which could be made over and above labor rates and materials cost for doing a plumbing job.—*U. S. Department of Agriculture release.*

CURRENT BUSINESS TRENDS IN OREGON

BANK DEBITS

Bank debits represent the dollar value of checks drawn against individual bank deposits. Approximately 90 per cent of all goods, property, and services is paid for by check. Bank debits are regarded as indicators of the general trend of business. The Bureau of Business Research collects bank debits from 92 banks and branches monthly. On occasion, the totals for the same month in different issues of the *Review* are not directly comparable because of necessary adjustment in basic data.

Marketing Districts	*Number of Banks Reporting*	*Debits Dec. 1945*	*Debits Nov. 1945*	*Debits Dec. 1944*	*Dec. 1945 compared with Nov. 1945*	*Dec. 1945 compared with Dec. 1944*
Oregon	86	$725,265,500	$673,589,254	$732,269,950	+ 7.7%	− 1.0%
Portland (Portland, Hillsboro, Oregon City, etc.)	25	493,826,005	443,673,233	534,897,346	+11.3	− 7.7
Lower Willamette Valley (Salem, McMinnville, etc.)	8	50,812,824	50,233,915	41,009,440	+ 1.2	+23.9
Upper Willamette Valley (Albany, Corvallis, Eugene, etc.)	12	56,000,184	45,628,303	42,319,578	+22.7	+32.3
North Oregon Coast (Astoria, Tillamook, etc.)	5	13,546,846	14,827,079	12,855,544	− 8.6	+ 5.4
Douglas, Coos Bay	3	11,256,328	13,743,326	10,064,453	−18.1	+11.8
Southern Oregon (Ashland, Medford, Grants Pass)	5	24,817,188	26,373,960	21,534,461	− 5.9	+15.2
Upper Columbia River (The Dalles, Hood River, etc.)	6	12,782,671	14,964,391	10,268,758	−14.6	+24.5
Pendleton area	6	14,239,607	14,077,039	14,077,731	+ 1.2	+ 1.1
Central Oregon (Bend, Prineville, Redmond)	3	7,150,530	7,276,883	6,977,231	− 1.7	+ 2.5
Klamath Falls, Lakeview area	4	22,604,016	21,726,705	20,534,368	+ 4.0	+10.1
Baker, La Grande area	6	11,541,612	13,654,509	11,483,519	−15.5	+ 0.5
Burns, Ontario, Nyssa	3	6,687,689	7,409,911	6,247,521	− 9.7	+ 7.0

BUILDING PERMITS

Building permits give an indication of building operations planned rather than actual construction under way. Care must be taken, in interpreting these data, to allow for the lag which may elapse between the issuance of the permit and the beginning of actual construction. The data have been collected by the Bureau of Business Research.

	New Residential Dec. 1945	*New Nonresidential Dec. 1945*	*Additions, Alterations & Repairs Dec. 1945*	*Total Dec. 1945*	*Total Nov. 1945*	*Total Dec. 1944*
Albany	$ *	$ *	$ *	$ *	$ 27,850	$ 37,575
Astoria	500	.....	17,700	18,200	22,090	70,587
Baker	58,000	.....	850	58,850	11,500	.....
Bend	12,700	3,975	1,250	17,925	25,975	.....
Coos Bay	8,000	19,000	.....	27,000	3,650	550
Corvallis	10,000	30,900	15,800	56,700	46,150	14,420
Eugene	110,100	26,620	14,345	151,065	127,268	51,097
Grants Pass	18,423	11,017	2,169	31,609	31,848	15,410
Klamath Falls	12,100	43,000	76,825	131,925	37,655	5,270
La Grande	.....	1,000	1,675	2,675	5,940	1,300
Medford	199,000	35,340	32,525	266,865	107,093	10,540
Oregon City	7,500	28,200	600	36,300	9,500	825
Pendleton	*	.....	.....	*	54,374	4,575
Portland	955,900	1,006,135	343,715	2,305,750	1,221,615	605,305
Salem	*	.....	.....	*	121,455	9,860
The Dalles	5,000	800	12,090	17,890	8,560	7,000
28 other communities	231,050	128,290	28,725	388,065	643,322	138,150
Total	$1,628,273	$1,334,277	$ 548,269	$3,510,819	$2,505,845	$ 972,664

* No report

RETAIL SALES

The sales of a state-wide sample of 382 independent retail stores, collected by the Bureau of the Census, give an indication of trading activity and retail distribution. These figures are often interpreted as indicating purchasing power.

BY MARKETING DISTRICT

	Dec. 1945 compared with Nov. 1945	*Dec. 1945 compared with Dec. 1944*
Oregon	+21.6%	+ 2.5%
Portland	+22.9	− 4.7
Lower Willamette Valley	+45.8	+12.1
Upper Willamette Valley	+41.1	+10.7
North Oregon Coast	+23.7	+ 0.3
Douglas, Coos Bay	− 1.4	− 8.7
Southern Oregon	+30.4	+23.8
Upper Columbia River	+14.8	+30.8
Pendleton	+45.2	−12.7
Central Oregon	+24.6	+34.9
Klamath Falls, Lakeview	+26.1	+11.4
Baker, La Grande	+19.7	+12.0
Burns, Ontario	+36.0	+21.7

BY TYPE OF OUTLET

	Dec. 1945 compared with Nov. 1945	*Dec. 1945 compared with Dec. 1944*
Oregon	+21.6%	+ 2.5%
Department stores	+44.1	+ 2.9
Food stores	+10.3	+ 6.5
Eating and drinking establishments	− 6.3	+ 2.3
Drug stores	+66.2	+13.4
Apparel stores	+23.5	− 6.4
Motor vehicle dealers	− 2.7	+28.6
Furniture, household, radio	+33.0	+19.7
Lumber, building, hardware	+ 3.4	− 4.0

LUMBER PRODUCTION

The West Coast Lumbermen's Association reports that the December 1945 weekly average of lumber production in western Oregon and western Washington was 88,271,000 board feet, an increase of 64.4 per cent over the previous month and a decrease of 34.2 per cent under the same month a year ago. The weekly average for November 1945 was 63,686,000 board feet, and for December 1944, 134,180,000 board feet.

COMMERCIAL FAILURES

Dun and Bradstreet report that there was one commercial failure in Oregon in December 1945 involving liabilities of $5,000. This compares with no failures in November 1945, and three failures in December 1944 with liabilities of $121,000.

LIFE-INSURANCE SALES

Ordinary life-insurance sales in Oregon for December 1945 were $9,214,000, which is an increase of 17.7 per cent over the previous month, and an increase of 31.0 per cent over the same month a year ago. Sales in the United States increased 8.6 per cent over the previous month, and increased 24.0 per cent over December 1944. Life-insurance data are related to the financial conditions of individuals and particularly businessmen, because life-insurance contracts are a form of savings.